

# BookletChart™



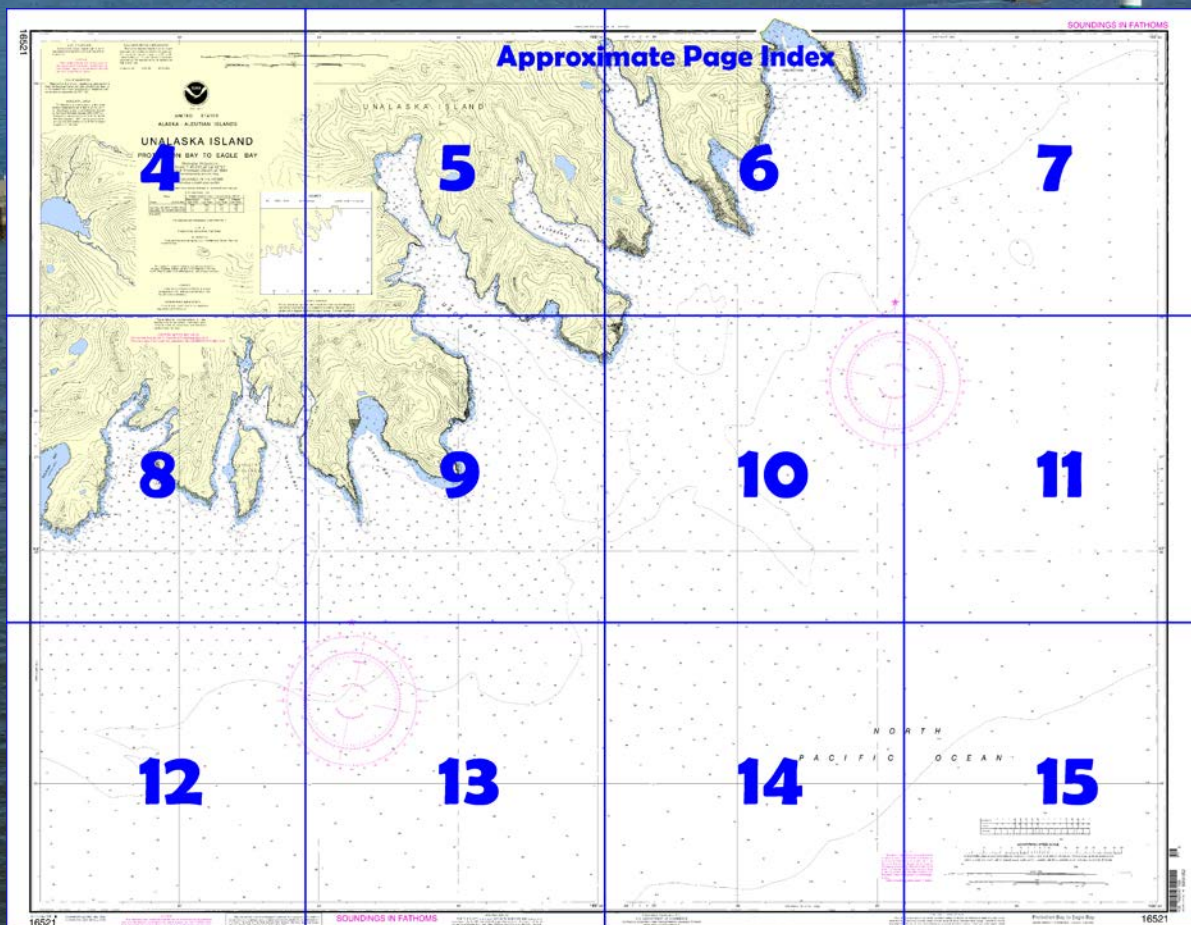
## **Unalaska Island – Protection Bay to Eagle Bay**

**NOAA Chart 16521**

*A reduced-scale NOAA nautical chart for small boaters*  
*When possible, use the full-size NOAA chart for navigation.*



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the**  
**National Oceanic and Atmospheric Administration**  
**National Ocean Service**  
**Office of Coast Survey**  
[www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov)  
**888-990-NOAA**

**What are Nautical Charts?**

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

**What is a BookletChart™?**

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

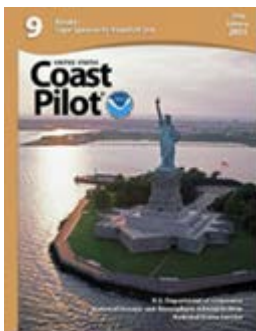
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

**Notice to Mariners Correction Status**

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=16521>.



**(Selected Excerpts from Coast Pilot)**

From Kayak Cape W the shoreline trends to the SW and is deeply indented by several large bays, affording various degrees of protection. Only two of these, Usof Bay and Blueberry Bay, are considered to give adequate protection from all kinds of weather. Raven Bay is landlocked at the head and gives protection for small craft.

**Protection Bay**, just W of Kayak Cape, extends about 2 miles inland. There is a slight hook to the W at the head of the bay,

giving some protection for small craft from the S. Rocks extend 500 yards SE off the point of the hook. This bay has the least shelter of any in the vicinity, but its depth is more convenient for anchoring.

**Cape Yanaliuk**, about 4 miles SW of Kayak Cape, is easily identified by the mushroom-shaped rock just off the point. Altogether there are two small rock islets just off this point. The cape is narrow and precipitous except for a short distance on the SW side, which is a grass-covered slope, topped and flanked at each end by rock cliffs. The cape has a markedly jagged appearance. A small bight on the E side of the cape extends 1 mile inland but affords no protection in bad weather.

**Three Island Bay**, W of Cape Yanaliuk, extends inland for about 5 miles in a NNW direction; it affords fair protection for small craft in any weather in 8 to 15 fathoms at the head of the bay, behind three small islands which give the bay its name. Deep water carries through to the head of the bay between the islands. Care must be exercised not to anchor too close to the rocks N of the E island, nor to the shoal water at the N end of the bay. Swinging room is restricted for vessels exceeding 100 feet in length, and the area affords only fair anchorage and protection for small craft. It is subject to violent williwaws, and in S weather a rather heavy swell from outside makes it uncomfortable.

**Foam Cove**, 1 mile above the W entrance point, provides fair temporary anchorage near the mouth of a stream.

**Blueberry Bay**, the next bay W of Three Island Bay, extends inland in a NW direction for about 3 miles. A fairly sharp turn to the N for about 1 mile makes the head of the bay landlocked and affords good shelter. The upper half of Blueberry Bay has a rugged shoreline characterized by narrow gravel and boulder beaches, or rocky shoreline with smooth rock slopes. Anchorage may be had in 15 to 20 fathoms in the middle of Blueberry Bay about 0.5 mile below the head in good holding bottom. The swinging room is entirely adequate for small craft and should suffice for ships of moderate size. Being entirely landlocked, there is almost entire freedom from swell. Winds are generally more moderate than in nearby localities and, as far as is known, never blow across the bay.

**Whalebone Cape** is characterized by a bare, rocky, 2,000-foot peak, that appears as a series of broken rust-colored cliffs from offshore. At the base of the mountain is a rockslide about 300 feet high. The foot of the slide extends to the high water line. The shore around the point of the cape is very rugged and broken, and dangerous for boat landings because of rock islets, rocks awash, and covered rocks close inshore.

**Usof Bay**, just W of Whalebone Cape, extends inland about 8 miles in a NNW direction and affords good anchorage at the head in 20 fathoms, sand bottom. The width of the bay narrows to 0.5 mile about 5 miles from the entrance and a slight turn to the N for about 1 mile makes the head of the bay landlocked. The general depth of the bay is over 60 fathoms. A small hanging glacier shows at the head of the bay over the W side of the narrows as seen from the entrance.

Good anchorage for small craft is found in **Johnson Cove**, at the mouth of a canyon on the W side about 5 miles in from the entrance, in 7 to 10 fathoms, mud bottom. The S arm of Johnson Cove should be avoided as it is shallow and filled with rocks. To the N of the canyon is a conspicuous cascade.

**Cape Prominence**, the W entrance point of Usof Bay, is marked by a tall cylindrical pinnacle connected at its base with the main point; it shows conspicuously from SSW. A flat ledge makes off 200 to 300 yards, and may be mistaken for the ledges off Reef Point.

Another cylindrical rock is about 700 yards N on the E side of the cape. It is not so noticeable, but is an aid in identifying Cape Prominence. Breakers extend for about 500 yards off the cape.

**U.S. Coast Guard Rescue Coordination Center**  
**24 hour Regional Contact for Emergencies**

RCC Juneau

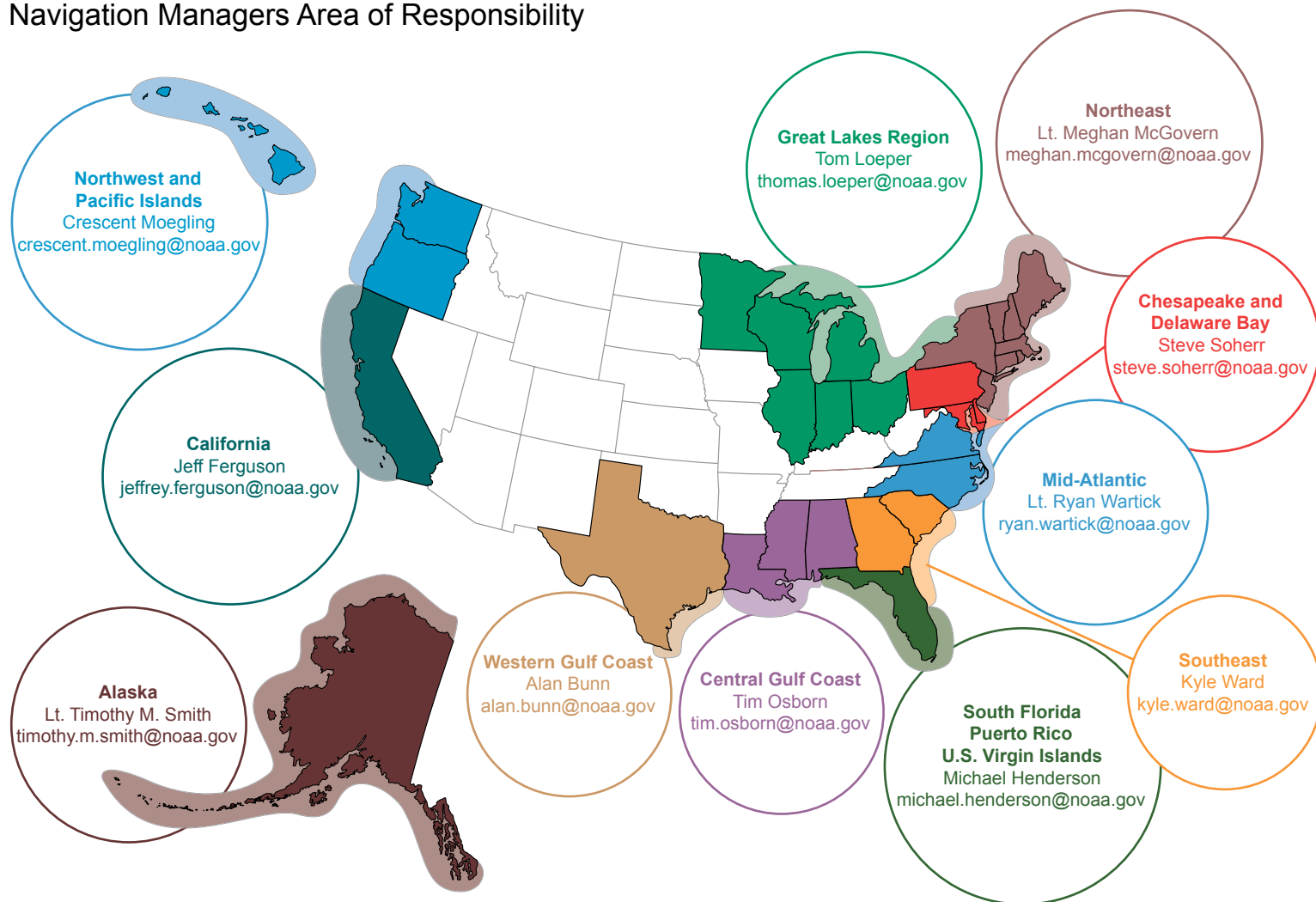
Commander

17th CG District

Juneau, Alaska

(907) 463-2000

# Navigation Managers Area of Responsibility



**NOAA's navigation managers** serve as ambassadors to the maritime community.

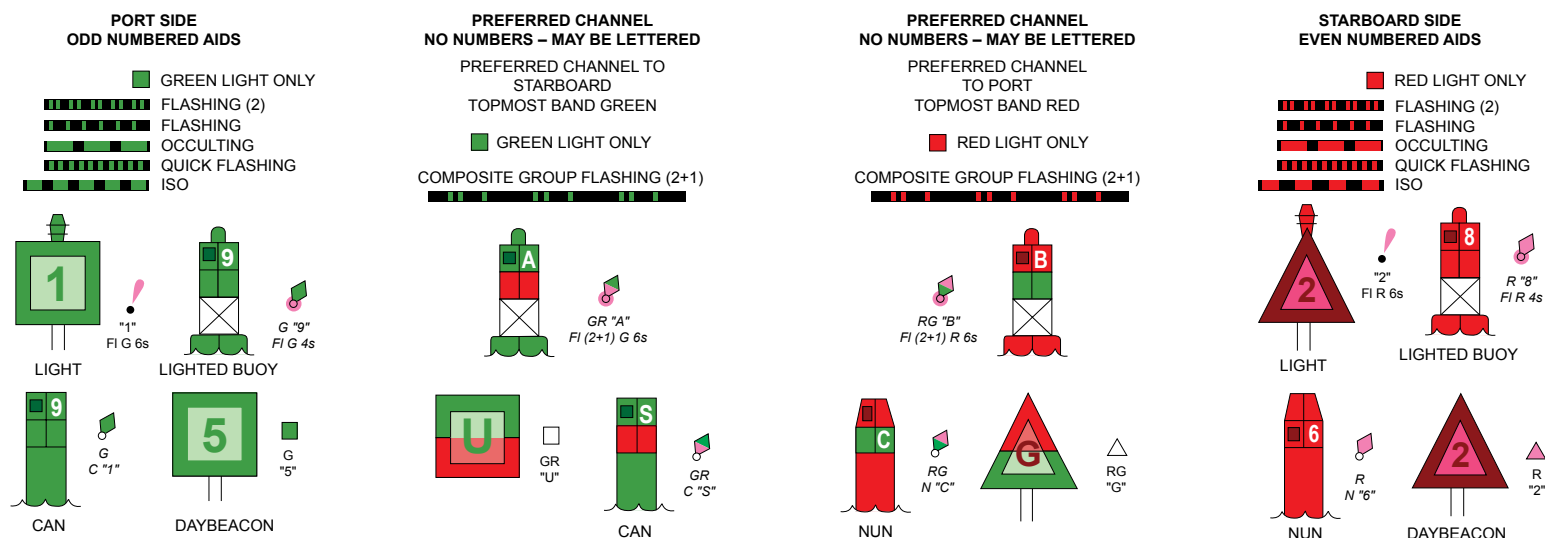
They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit [nauticalcharts.noaa.gov/service/navmanagers](http://nauticalcharts.noaa.gov/service/navmanagers)

To make suggestions or ask questions online, go to [nauticalcharts.noaa.gov/inquiry](http://nauticalcharts.noaa.gov/inquiry).

To report a chart discrepancy, please use [ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx](http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx).

## Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>



**AIDS TO NAVIGATION**  
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

**WARNING**  
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

**POLLUTION REPORTS**  
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

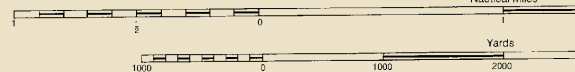
**HORIZONTAL DATUM**  
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 3.094" southward and 6.747" westward to agree with this chart.

**NOAA WEATHER RADIO BROADCASTS**  
The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Unalaska, AK WXX-89 162.550 MHz

55'

SCALE 1:40,000  
Nautical Miles



UNITED STATES  
ALASKA - ALEUTIAN ISLANDS

UNALASKA ISLAND  
PROTECTION BAY TO EAGLE BAY

Mercator Projection  
Scale 1:40,000 at Lat 53°27'  
North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS  
AT MEAN LOWER LOW WATER

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

PLACE		Height referred to datum of soundings (MLLW)		
NAME	(IATA/ONC)	Mean Higher High Water	Mean High Water	Mean Low Water
Eagle Bay, AK	(53°29'N/166°56'W)	feet 5.4	feet 5.0	feet 1.2
Usoof Bay, AK	(53°31'N/166°48'W)	feet 6.1	feet 5.3	feet 1.4

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Feb 2015)

For Symbols and Abbreviations see Chart No. 1

**HEIGHTS**  
Heights in feet above Mean High Water.

**AUTHORITIES**  
Hydrography and topography by the National Ocean Service, Coast Survey.

The contour lines are hill shapes, sketched to afford the navigator a generalized indication of the character of the land forms. They should not be relied upon as lines of equal elevation.

**CAUTION**  
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

**SUPPLEMENTAL INFORMATION**  
Consult U.S. Coast Pilot 9 for important supplemental information.

**RADAR REFLECTORS**  
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

COLREGS, 80.1705 (see note A)  
International Regulations for Preventing Collisions at Sea, 1972.  
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

**AREA TO BE AVOIDED (ATBA)**  
The entire area of this chart falls within an Area to be Avoided. All ships 400 gross tonnage and upwards solely in transit should avoid the Area. This Area is IMO-Adopted (MSC IMO at 0000 UTC, JAN 1, 2016).

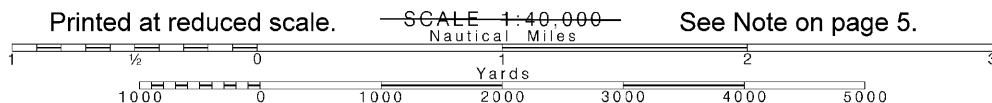
Joins page 8

B4 1900 - 1939 NOS Survey

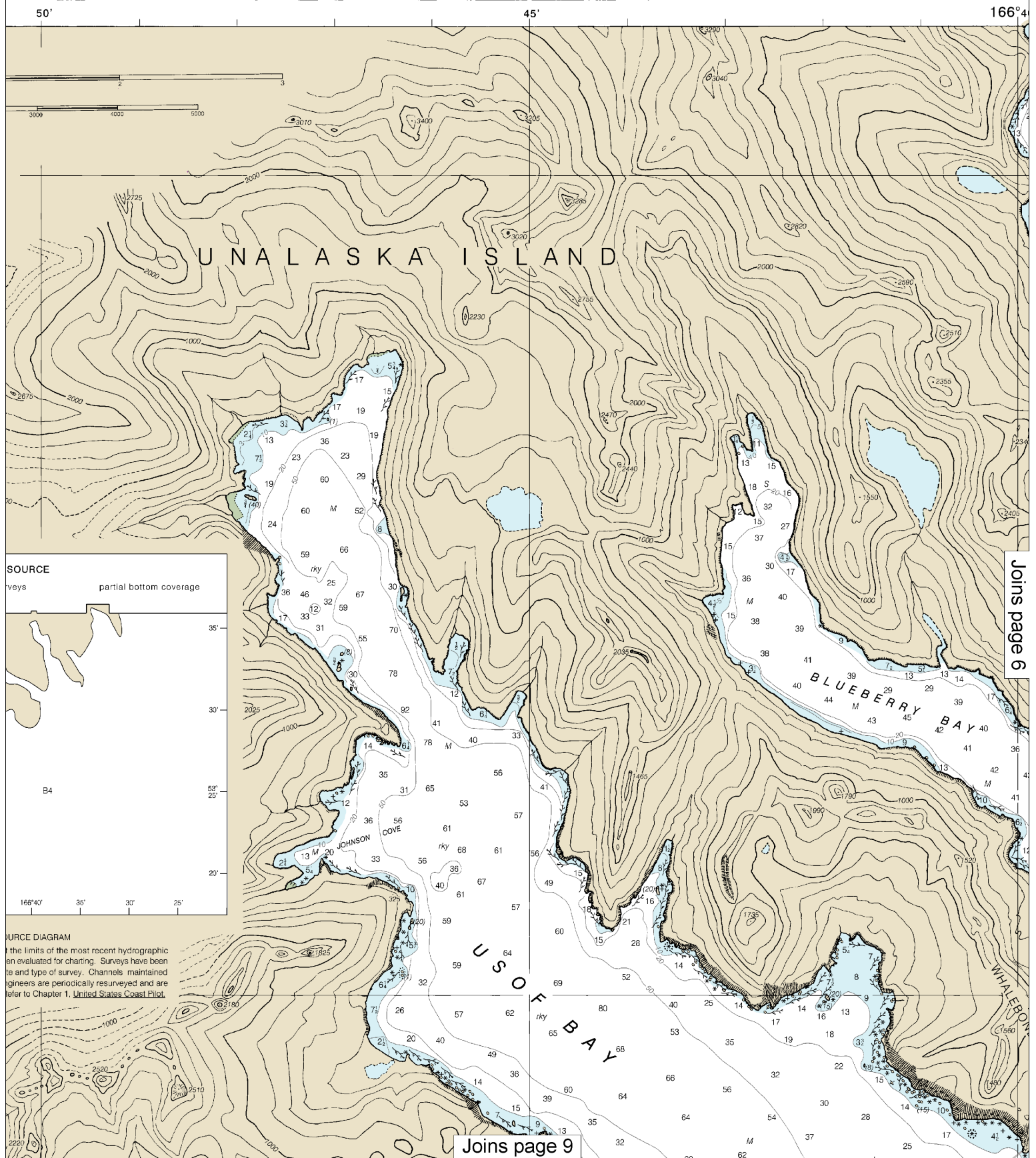
55' 50' 45'

The outlined areas represent the survey information that has been banded in this diagram by date by the U.S. Army Corps of Engineers. Not shown on this diagram. Ref

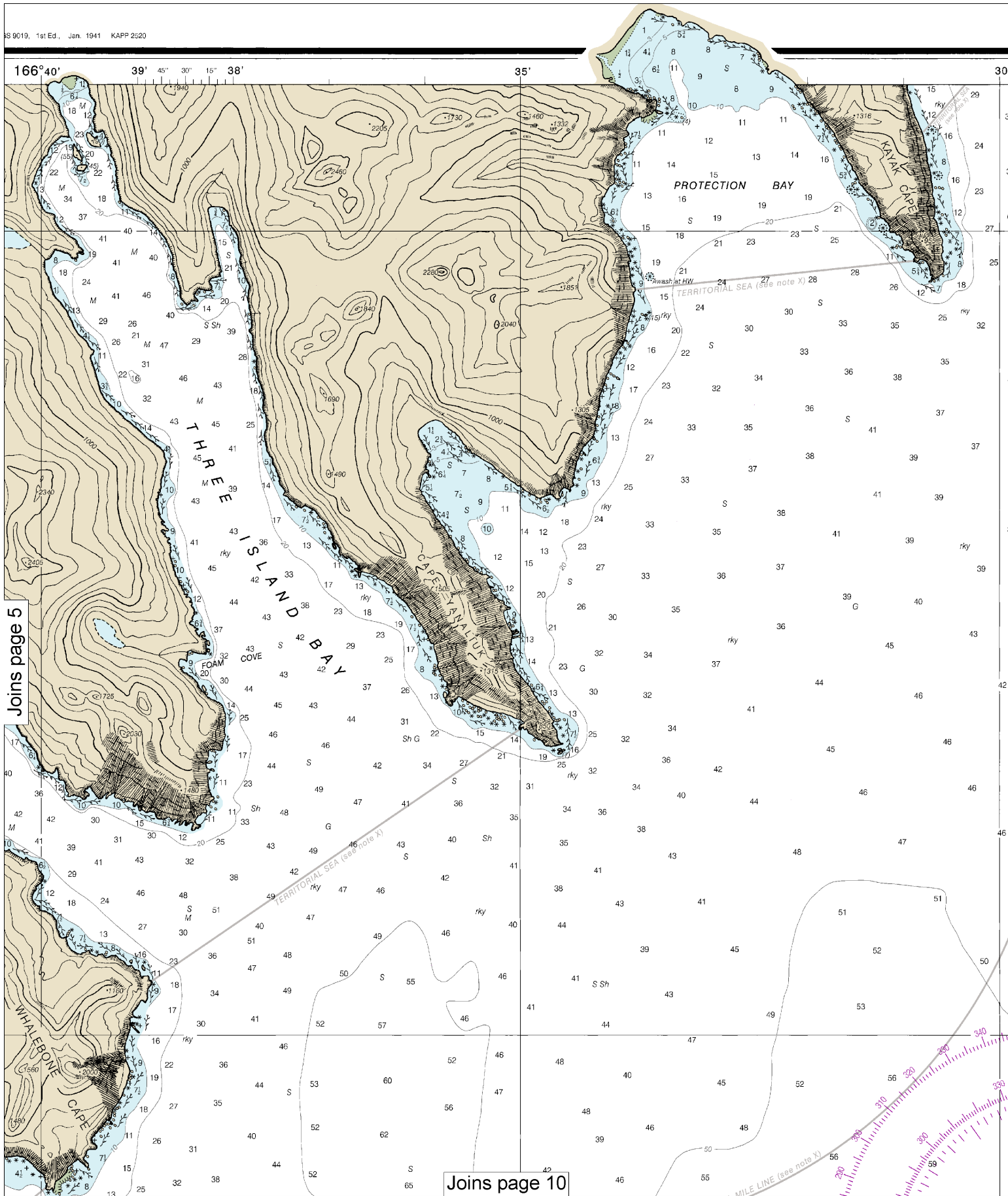
Note: Chart grid lines are aligned with true north.



See Note on page 5.



This BookletChart was reduced to 70% of the original chart scale.  
 The new scale is 1:57142. Barscales have also been reduced and  
 are accurate when used to measure distances in this BookletChart.



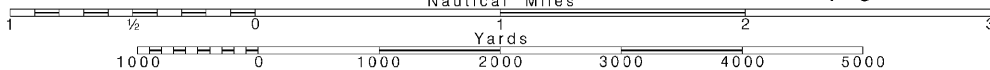
6

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000  
Nautical Miles

See Note on page 5.



[illegible]

7th Ed., Mar. 2015. Last Correction: 12/10/2015. Cleared through:  
 LNM: 4916 (12/6/2016), NM: 5116 (12/17/2016), CHS: 1116 (11/25/2016)



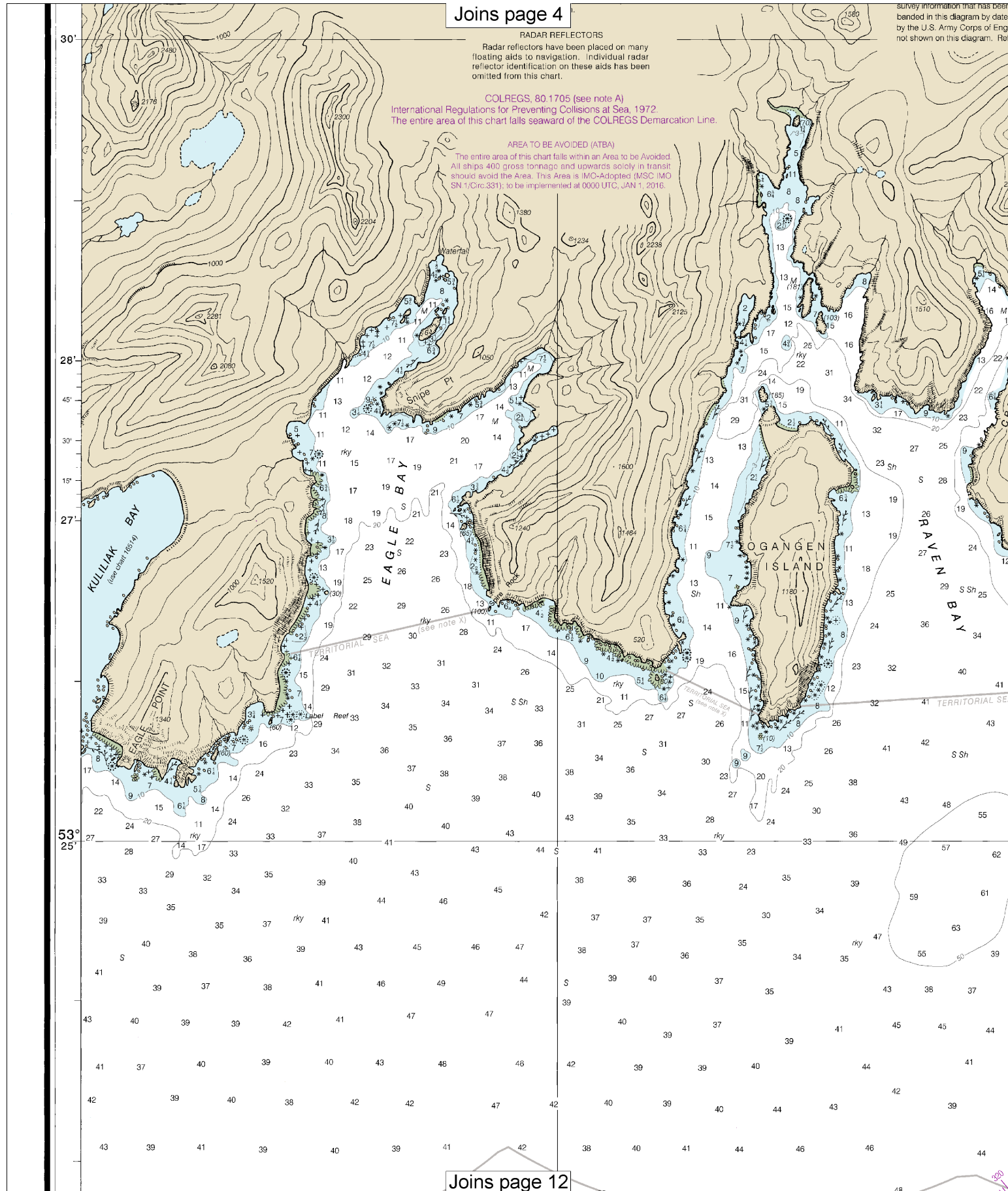
Joins page 4

survey information that has been banded in this diagram by date by the U.S. Army Corps of Engineers not shown on this diagram. Ref

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Joins page 12

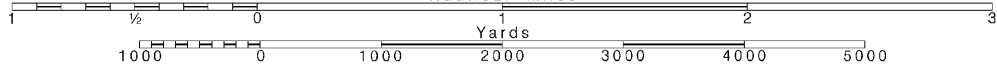
8

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000  
Nautical Miles

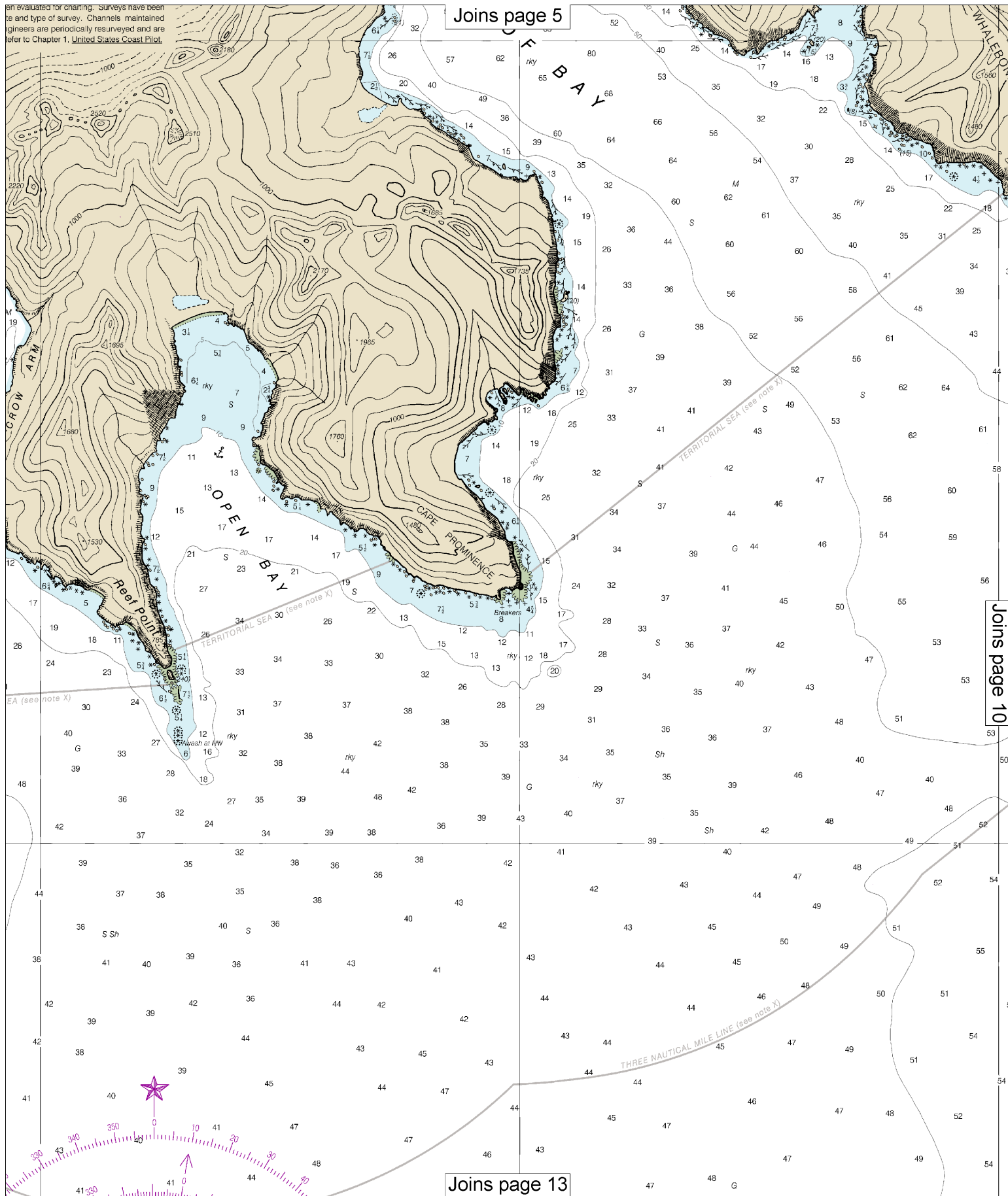
See Note on page 5.





not evaluated for charting. Surveys have been made and type of survey. Channels maintained by engineers are periodically resurveyed and are referred to Chapter 1, United States Coast Pilot.

Joins page 5



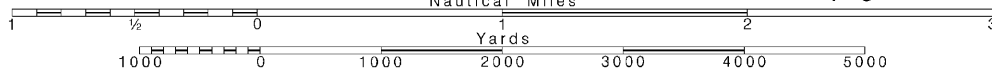
Joins page 10

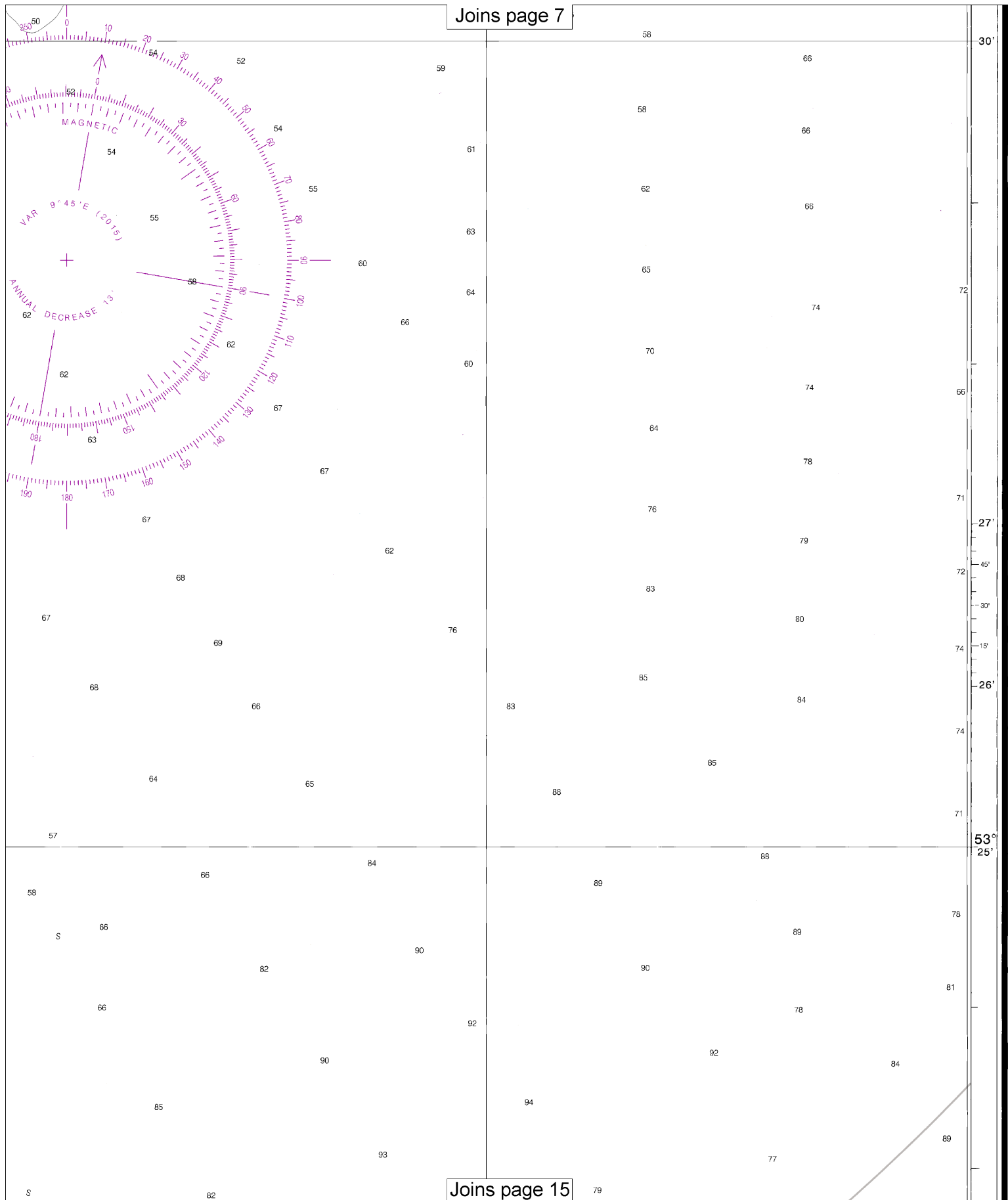
Joins page 13

Note: Chart grid lines are aligned with true north.

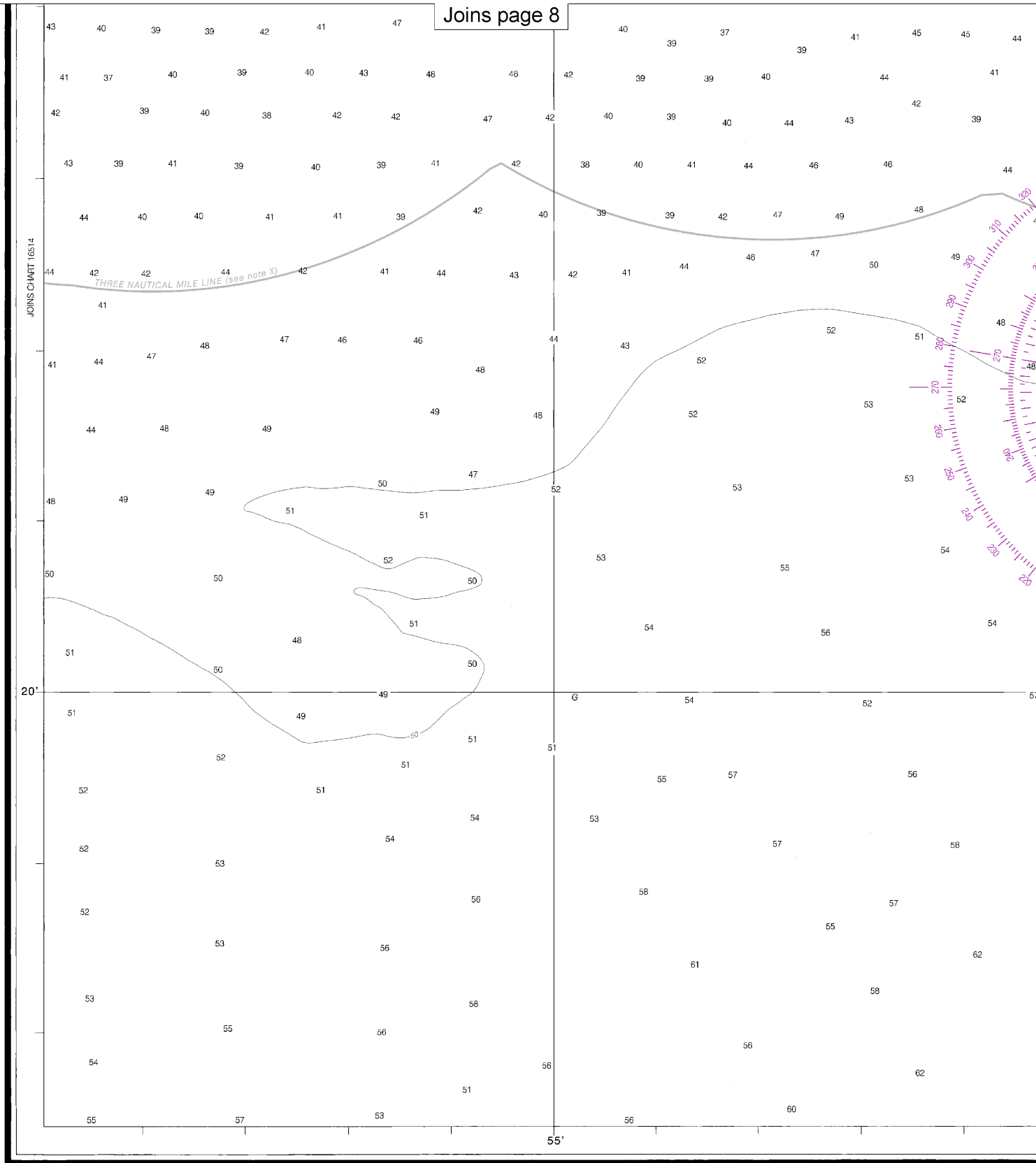
SCALE 1:40,000  
Nautical Miles

See Note on page 5.









16521

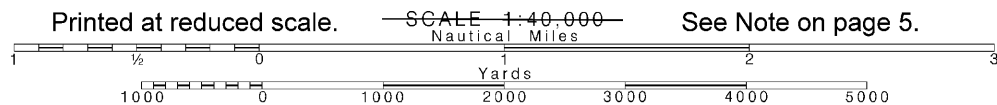
7th Ed., Mar. 2015. Last Correction: 12/10/2015. Cleared through:  
LNM: 4916 (12/6/2016), NM: 5116 (12/17/2016), CHS: 1116 (11/25/2016)

CAUTION  
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov)

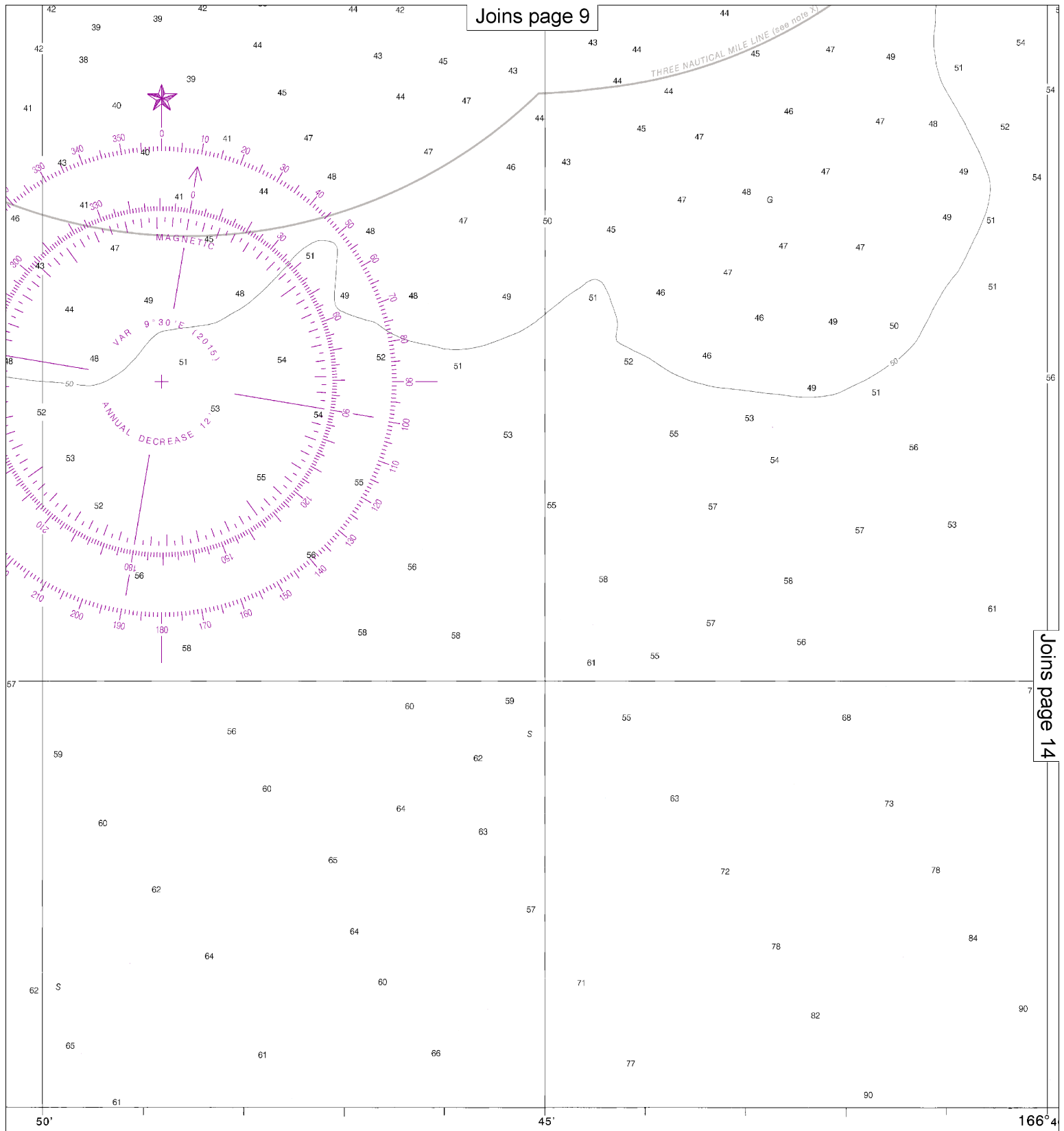
NOAA encourages users to submit inquiries, discrepancies or comments about this chart at <http://www.nauticalcharts.noaa.gov/staff/contact.htm>.

12

Note: Chart grid lines are aligned with true north.



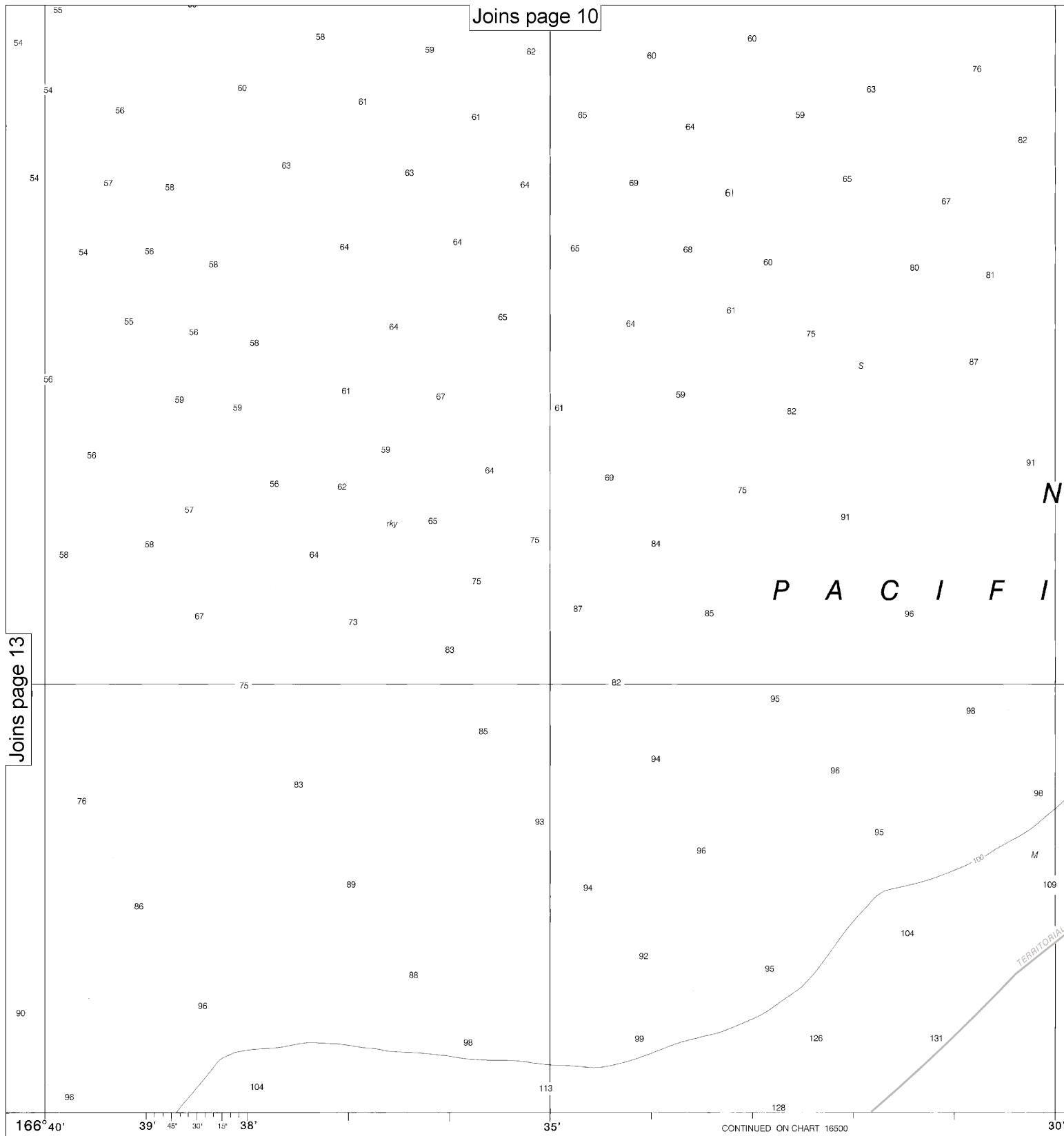
See Note on page 5.



SOUNDINGS IN FATHOMS

Joins page 10

Joins page 13



Published at Washington, D.C.  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE  
COAST SURVEY

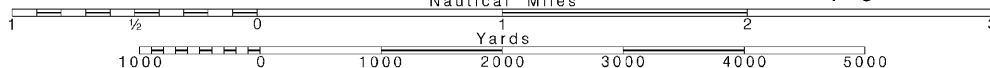
14

Note: Chart grid lines are aligned with true north.

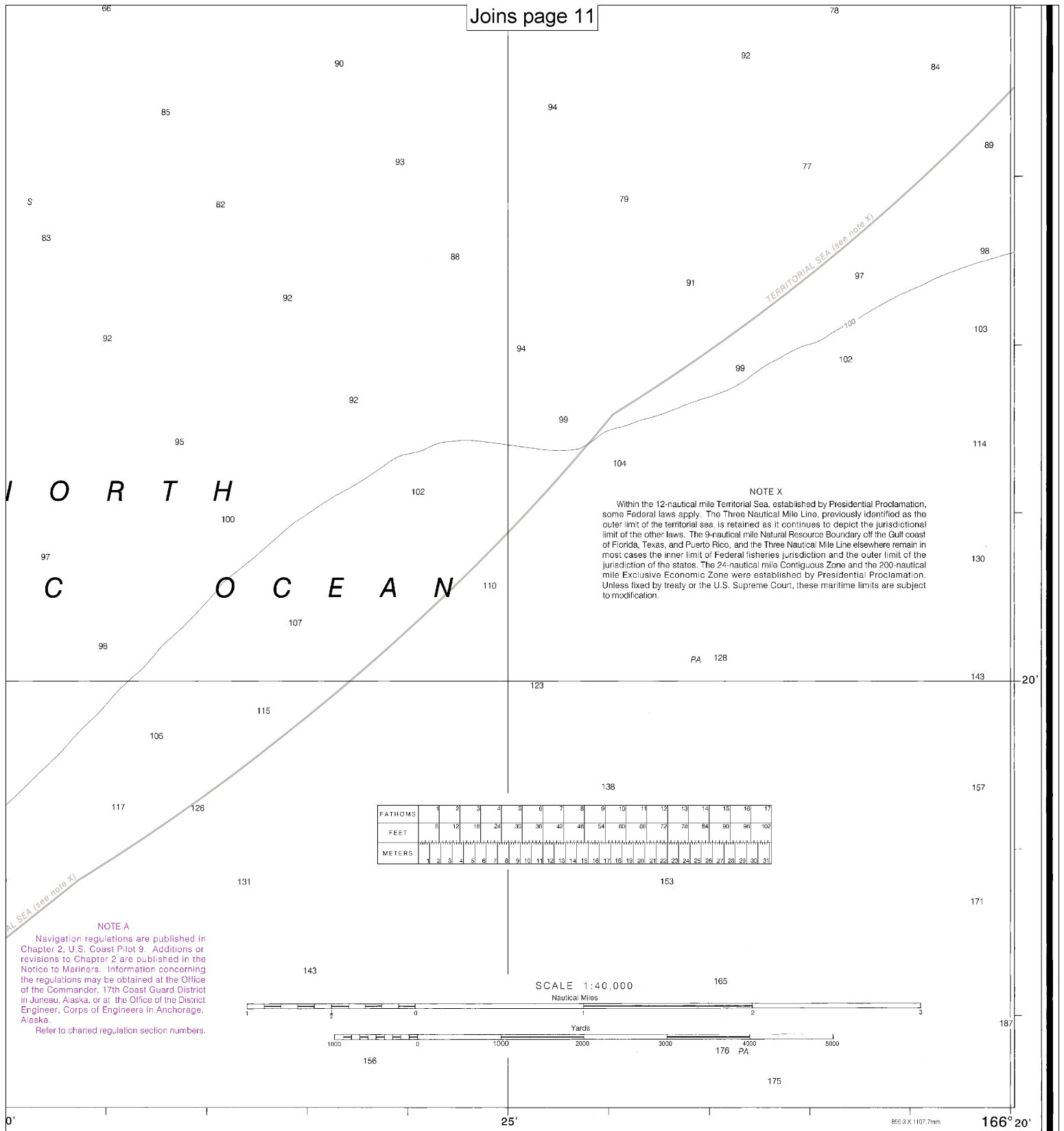
Printed at reduced scale.

SCALE 1:40,000  
Nautical Miles

See Note on page 5.

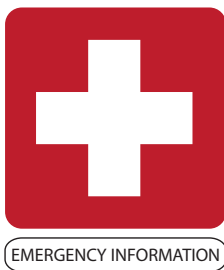






Protection Bay to Eagle Bay  
 SOUNDINGS IN FATHOMS - SCALE 1:40,000

16521



## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

## Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**

## Quick References

Nautical chart related products and information	—	<a href="http://www.nauticalcharts.noaa.gov">http://www.nauticalcharts.noaa.gov</a>
Interactive chart catalog	—	<a href="http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml">http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml</a>
Report a chart discrepancy	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx">http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx</a>
Chart and chart related inquiries and comments	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs">http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs</a>
Chart updates (LNM and NM corrections)	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html">http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html</a>
Coast Pilot online	—	<a href="http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm">http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm</a>
Tides and Currents	—	<a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a>
Marine Forecasts	—	<a href="http://www.nws.noaa.gov/om/marine/home.htm">http://www.nws.noaa.gov/om/marine/home.htm</a>
National Data Buoy Center	—	<a href="http://www.ndbc.noaa.gov/">http://www.ndbc.noaa.gov/</a>
NowCoast web portal for coastal conditions	—	<a href="http://www.nowcoast.noaa.gov/">http://www.nowcoast.noaa.gov/</a>
National Weather Service	—	<a href="http://www.weather.gov/">http://www.weather.gov/</a>
National Hurricane Center	—	<a href="http://www.nhc.noaa.gov/">http://www.nhc.noaa.gov/</a>
Pacific Tsunami Warning Center	—	<a href="http://ptwc.weather.gov/">http://ptwc.weather.gov/</a>
Contact Us	—	<a href="http://www.nauticalcharts.noaa.gov/staff/contact.htm">http://www.nauticalcharts.noaa.gov/staff/contact.htm</a>



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This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.